

CLAIMS

1. A VoIP system, comprising:
 - a console;
 - a control unit coupled to the console; and
 - a first IP-PBX coupled to the control unit with a first link and a second link, the first link including an Ethernet connection for administrative messaging, the second link including an asynchronous connection for status information.
2. The VoIP system of claim 1, further comprising a second IP-PBX coupled to the control link with a third link and a fourth link, the third link including an Ethernet connection for administrative messaging, the fourth link including an asynchronous connection for status information.
3. The VoIP system of claim 1, further comprising a UPS coupled to the control unit with a third link, the third link including an asynchronous connection.
4. A VoIP system, comprising:
 - a console;
 - a control unit coupled to the console;
 - a first interface to an IP-PBX, the first interface coupled to the control unit, the first interface including an Ethernet connection for administrative messaging; and
 - a second interface to an IP-PBX, the second interface coupled to the control unit, the second interface including an asynchronous connection for status information.

5. A VoIP system, comprising:
 - a control unit; and
 - a IP-PBX coupled to the control unit, the control unit including a first Ethernet driver coupled to the IP-PBX.
6. The VoIP system of claim 5, wherein the control unit further includes a serial driver coupled to the IP-PBX.
7. The VoIP system of claim 5, wherein the IP-PBX includes a conversion module, the conversion module configured to convert between a first protocol in the IP-PBX and a second protocol in the control unit.
8. The VoIP system of claim 5, wherein the control unit further includes:
 - a session controller coupled to the first Ethernet driver;
 - a conversion module coupled to the session controller; and
 - a management module coupled to the session controller and the conversion module, the session controller configured to determine whether a protocol in the IP-PBX matches a protocol in the management module, the session controller further configured to couple the first Ethernet driver to the management module through the conversion module, if the protocol in the IP-PBX does not match the protocol in the management module.
9. The VoIP system of claim 8, wherein the session controller is further configured to couple the first ethernet driver to the management module without using the first conversion module, if the protocol in the IP-PBX does match the protocol in the management module.
10. The VoIP system of claim 5, wherein the control unit further includes:
 - an interface to a network;
 - a second Ethernet driver coupled to the interface to the network;
 - a filter coupled to the second ethernet, the filter configured to select packets; and
 - a packet analysis module coupled to the filter, the packet analysis module configured to monitor performance.

11. The VoIP system of claim 10, the filter configured to select packets based at least one of type, session, origination IP address, and destination IP address.
12. The VoIP system of claim 10, the packet analysis module configured to monitor at least one of packet loss, jitter and latency.
13. A VoIP system, comprising:
 - a console;
 - a first control unit coupleable to the console; and
 - a second control unit coupleable to the console, the console configured to be selectively coupled to one of the first control unit and the second control unit to perform administrative functions.
14. A VoIP system, comprising:
 - a console;
 - a first control unit coupled to the console;
 - a second control unit coupled to the first control unit; and
 - a third control unit coupled to the first control unit, the first control unit configured to aggregate performance data from the second and third control units, the console coupled to the third control unit for access to the aggregated performance data.
15. A method for monitoring in a VoIP system, comprising:
 - setting an alert threshold;
 - measuring a performance parameter;
 - determining whether the measured performance parameter exceeds the alert threshold;
 - notifying an administrator if the alert threshold has been exceeded; and
 - performing active testing if the alert threshold has been exceeded.
16. The method of claim 15, wherein the performance parameter is at least one of packet loss, jitter, and latency.

17. The method of claim 15, wherein notifying includes sending at least one of an email, a page, and a SNMP message.
18. A method for monitoring in a VoIP system, comprising:
determining a status of an access node to a network;
rebooting an access card if the status of the access node is an error; and
notifying an administrator if the status is one of an error, an alarm, and a loop-back condition.
19. The method of claim 18, wherein notifying includes sending at least one of an email, a page, and a SNMP message.
20. A method for monitoring in a VoIP system, comprising:
receiving a delay value from a user;
reading a power status;
determining whether there is a loss of external power based on the power status; and
selectively shutting down at least one resource after an amount of time provided by the delay value if it is determined that there is a loss of power.
21. The method of claim 20, wherein reading the power status is based on status data transmitted from an uninterruptible power supply.
22. The method of claim 20, wherein the at least one resource includes an IP-PBX.
23. The method of claim 20, further comprising:
determining whether a power fault condition is imminent based on the power status;
sending an alert if it is determined that a power fault condition is imminent; and
backing-up data if it is determined that a power fault condition is imminent.

24. A VoIP system, comprising:
 - a control unit;
 - a IP-PBX coupled to the control unit, the IP-PBX having a plurality of ports;
 - a telephone coupled to one of the plurality of ports; and
 - an interface to a PSAP updater, the interface coupled to the control unit, the control unit configured to store geographic information for each of the plurality of ports, the control unit further configured to store extension and identification information related to the telephone, the control unit further configured to discover the one of the plurality of ports, the control unit configured to associate the extension, identification information, and the geographic information for the telephone.
25. The VoIP system of claim 24, wherein the control unit is further configured to output the associated extension, identification information, and the geographic information for the telephone to the interface to the PSAP updater.
26. A method for enabling E-9-1-1 in a VoIP network, comprising:
 - setting geographic information for each of a plurality of ports;
 - setting identification information for each of a plurality of telephone extensions;
 - discovering a telephone on one of the plurality of ports; and
 - resolving the extension, identification information and geographic information for the discovered telephone.
27. The method of claim 26, further comprising sending the resolved extension, identification information and geographic information to a PSAP updater.
28. A method for controlling a VoIP network, comprising:
 - monitoring performance data;
 - monitoring an access node;
 - reading a power status; and
 - performing a discovery process.